	Application No.	Applicant(s)
Notice of Allowability	10/750,841	YU, GYEONG-HO
	Examiner	Art Unit	
	Joni Hsu	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *papers received July 12, 2005*.

2. ☒ The allowed claim(s) is/are *1-11,13-16,18-20 and 22-26*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None of the:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

      Paper No./Mail Date _____ .

  Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 6/27/05

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on June 27, 2005 was filed after

the mailing date of the application on January 5, 2004. The submission is in compliance with the

provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being

considered by the examiner.

Response to Amendment

2.   Applicant's arguments, see pages 8-9, filed July 12, 2005, with respect to Claims 1-11,

13-16, 18-20, and 22-26 have been fully considered and are persuasive. The rejections under 35

U.S.C. 102(b) of Claims 1-4 and 6 and Claims 5, 11, 16, 19, 20, 23, and 24-26 have been

withdrawn.

EXAMINER'S AMENDMENT

3.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

4.   Authorization for this examiner's amendment was given in a telephone interview with

Michael Kondoudis on October 12, 2005.

5.   The application has been amended as follows:

The double brackets ([[]]) indicate characters to be removed, and the underlined

characters indicate characters to be added.

Claim 1 is amended as follows:

"...does not [[over lap]] <u>overlap</u> the reading address and the reading address does not

overlap the [[wring]] <u>writing</u> address".

Claims 12, 17, and 21 are cancelled.

Allowable Subject Matter

6.   Claims 1-11, 13-16, 18-20, and 22-26 are allowed.

The following is an examiner's statement of reasons for allowance:

7.   The prior art taken singly or in combination do not teach or suggest a second memory

substituted for the first memory when a difference between the data reading rate and the data

writing rate yields an unstable distance between the reading address and the writing address, the

format-converted image data being written to the second memory when the second memory is

substituted for the first memory so that the writing address does not overlap the reading address

and the reading address does not overlap the writing address, as recited in Claim 1. Claims 2-10

depend from Claim 1, and therefore also contain allowable subject matter. The prior art also

does not teach an apparatus and method wherein if the reading rate (Dclock) is faster than the

writing rate (Mclock) in the first memory, the desired address offset, Address_offset, is

calculated using the following: Address_offset = (a maximum address of the first memory) x

(Dclock − Mclock) / Dclock as recited in claims 7, 14, 16, and 25 including the further limitation

of the maximum address of the first memory being calculated by multiplying the resolution of

the display on which image data are to be displayed by 3, as recited in claims 8, 10, 13, 15, 18,

and 22. The prior art also does not teach the apparatus and method wherein if the writing rate

(Mclock) is faster than the reading rate (Dclock) in the first memory, the desired address offset,

Address_offset, is calculated using the following: Address_offset = (a maximum address of the

first memory) x (Mclock − Dclock) / Mclock, as recited in claims 9, 11, 19, and 23. Claim 20

depends from claim 19, claim 24 depends from claim 23, and claim 26 depends from claim 25,

and therefore claims 20, 24, and 25 also contain allowable subject matter.

8.   The closest prior art (Nally US005808629A) teaches a memory management apparatus

(Col. 7, lines 52-61) in a video reproducing system (Col. 2, lines 56-59), wherein input image

data having a format is converted into a suitable format for a display, comprising a scaler to

convert the format of the input image data (Col. 7, lines 38-44); a first memory having an

address for writing (*input addressing circuitry for generating addresses for inputting data into a*

selected one of the buffer areas, Col. 3, lines 44-46, *input address circuitry is operable during*

the first stage and the second stages to address the first buffer, Col. 3, lines 51-53), at which the

format-converted image data is written at a data writing rate; and an address for reading (*output*

addressing circuitry for generating addresses for retrieving data from a selected one of the

buffer areas, Col. 3, lines 42-44), from which the format-converted image data is read at a data

reading rate. Nally describes that the toggling scheme insures that the only time both the input

stream and the output stream are rastered to and from the same buffer area, the output stream is

ahead of the input stream. Since the faster stream is therefore always ahead of the slower stream,

no overrun will occur, so this prevents tearing (Col. 2, lines 50-65). Means are provided for

toggling the output pointer for inputting data into the first buffer and outputting data from the

second buffer and outputting data from the first buffer and inputting data into the second buffer

(Col. 3, lines 55-67). Therefore, if the output stream is not ahead of the input stream, then

toggling must occur, and the format-converted image data is written into the second buffer (Col.

2, lines 50-64; Col. 3, lines 55-67). However, Nally does not teach a second memory substituted

for the first memory under certain conditions.

9.   Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Nally (US005808629A) teaches a system and method for controlling tearing during the

display of data in multimedia processing and display systems (Col. 1, lines 9-13).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joni Hsu whose telephone number is 571-272-7785. The

examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JH

Kee M. Tung
Primary Examiner